



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,245	06/08/2007	Hyo Gu Kim	PLU-0024	4053
23413	7590	04/13/2009	EXAMINER	
CANTOR COLBURN, LLP			AMRANY, ADI	
20 Church Street				
22nd Floor			ART UNIT	PAPER NUMBER
Hartford, CT 06103			2836	
			NOTIFICATION DATE	DELIVERY MODE
			04/13/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

[usptopatentmail@cantorcolburn.com](mailto:usptopatentmail@cantorcolburn.com)

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/588,245	KIM, HYO GU	
	<b>Examiner</b>	<b>Art Unit</b>	
	ADI AMRANY	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 02 August 2006.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.  
 4a) Of the above claim(s) 1-10 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 11,12,15,16,18 and 19 is/are rejected.  
 7) Claim(s) 13,14,17 and 20 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 02 August 2006 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/20/06; 10/27/06</u> .                                       | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Invention III (corresponding to claims 11-20) in the reply filed on April 2, 2009 is acknowledged.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11-12 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watkins (US 6,712,269) in view of Masayoshi (JP 1989-318989), from applicant's Information Disclosure Statement, filed October 27, 2006.

With respect to claim 11, Watkins discloses a first moving body sensor (10; col. 3, lines 11-26) arranged on an entrance of a specific object space or on a position adjacent to the entrance (col. 1, lines 41-46; col. 2, lines 30-40; col. 3, line 67 to col. 4, line 3; col. 5, lines 9-23); a second moving body sensor (10) arranged in the inward direction of the specific object space from the first moving body sensor; and control means (30; col. 4, lines 26-37) electrically connected with the first and second sensors, wherein the controls means determines if the first sensor is activated before or after the second sensor.

Watkins discloses two sensors placed on opposite sides of a doorway threshold, such that a person entering or leaving, will walk by one sensor before the other. The

Watkins processor monitors the outputs of the sensors to determine in which direction the person is traveling (into the room or out of the room; see also claim 1, lines 4-5).

Watkins does not expressly disclose that the control means turns on or off an electrical device based on the direction of travel through the threshold.

Masayoshi discloses a sensor to detect the presence of a person and a control means to turn on an electric device (5) if the person is detected and to turn off the electric device if the person is not detected. Watkins and Masayoshi are analogous because they are from the same field of endeavor, namely body sensors. At the time of the invention by applicant, it would have been obvious to combine the sensors disclosed in Watkins with the electric device disclosed in Masayoshi in order to illuminate a light after it is determined that a person has entered the room (Masayoshi abstract).

Watkins discloses counting the number of persons currently present in the room. At the time of the invention by applicant, it would have been obvious to extrapolate the stored data (number of people) to determine an action to take based on the presence/absence of people.

With respect to claim 12, Watkins discloses counting the number of people entering or leaving the room (col. 3, lines 26-42). It would be obvious to one skilled in the art to increment the count by 1 when 1 person enters the room. As discussed above, Masayoshi discloses turning off the electric device when the room is unoccupied. According to Watkins, the room is unoccupied when all the people have left and the counter is zero.

With respect to claims 18-19, Watkins and Masayoshi discloses the apparatus necessary to complete the recited methods, as discussed above in the rejections of claims 11-12, respectively.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watkins in view of Masayoshi and 2003-41357 ('357) from applicant's IDS.

Watkins discloses an indicator electrically connected with the control means for outputting information corresponding to the sensor outputs (28; col. 4, lines 16-25) and the number of occupants. Masayoshi discloses the number of occupants determines the turning-on and turning-off of the electric device. Watkins and Masayoshi do not expressly disclose a manual switch arranged on the entrance of the object space for manually turning on and off the electrical device according to a user's manipulation.

'357 discloses that it is known to pair an automatically controlled light with a manual override (abstract). Watkins, Masayoshi and '357 are analogous because they are from the same field of endeavor, namely sensors. At the time of the invention by applicant, it would have been obvious to combine the two sensors disclosed in Watkins, the electric device disclosed in Masayoshi and the manual switch disclosed in '357 in order to allow a user to turn on the light. For example, it is well known that while watching movies, a person may want to turn the lights off even though they are in the room. Further, a user may want to leave a light on in a room even though they are not in the room in order to discourage a potential burglar.

5. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watkins and applicant's admitted prior art (specification, par 3-14).

As discussed above, Watkins discloses a dual-sensor system for detecting a person entering or exiting a room. APA discloses that it is known in the art to use only one sensor to detect a person (par 8-10). APA also discloses that the controls means turns on/off an electric device based on the sensor (par 7).

Watkins and APA are analogous because they are from the same field of endeavor, namely occupancy sensors. At the time of the invention by applicant, it would have been obvious to one skilled in the art to replace the two-sensor entrance detection disclosed in Watkins with the single-sensor entrance detection disclosed in APA, as that is the system already known and used in practice in the prior art.

***Allowable Subject Matter***

6. Claims 13-14, 17 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 13, 17 and 20, the prior art does not teach or suggest stopping operating of the first and second moving body sensors for a predetermined time after automatically turning on or turning off the electric device. Claim 14 depends from claim 13.

Watkins discloses that as a first sensor begins to detect a person entering the room, other sensors are inhibited. Watkins, however, does not discloses that the first sensor is also inhibited.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references cited in the enclosed list disclose different types of occupancy sensors, including an arrangement of multiple sensors to detect the entry/exit to/from a room.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADI AMRANY whose telephone number is (571)272-0415. The examiner can normally be reached on Mon-Thurs, from 10am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on (571) 272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AA

4-8-09  
/Stephen W Jackson/  
Primary Examiner, Art Unit 2836